Environmental Fate & Effects Division
PESTICIDE ENVIRONMENTAL FATE ONE LINE SUMMARY
MYCLOBUTANIL
Last Update on February 23, 1990
[V] = Validated Study [S] = Supplemental Study [U] = USDA Data

Common Name:MYCLOBUTANIL
Smiles Code:
PC Code # :128857 CAS #:88671-89-0 Caswell #:

Chem. Name :α-BUTYL-α-(4-CHLOROPHENYL)-1H-1,2,4-TRIAZOLE-1-PROPANE-NITRILE
Action Type:FUNGICIDE

Trade Names:SYSTANE 40W; RH-3866
(Formul'tn):40 WP
Physical State:

Use :
Patterns :
(% Usage) :
:

Empirical Form: $C_{15}H_{17}N_4Cl$
Molecular Wgt.: 288.78 Vapor Pressure: 1.60E -6 Torr
Melting Point : °C Boiling Point: °C
Log Kow : 2.84 - 2.98 pKa: @ °C
Henry's : E Atm. M3/Mol (Measured) 4.28E -9 (calc'd)

Solubility in ...					Comments
Water	1.42E	2	ppm	@25.0 °C	
Acetone	E		ppm	@ °C	
Acetonitrile	E		ppm	@ °C	
Benzene	E		ppm	@ °C	
Chloroform	E		ppm	@ °C	
Ethanol	E		ppm	@ °C	
Methanol	E		ppm	@ °C	
Toluene	E		ppm	@ °C	
Xylene	E		ppm	@ °C	
	E		ppm	@ °C	
	E		ppm	@ °C	

Hydrolysis (161-1)
[S] pH 5.0:STABLE
[S] pH 7.0:STABLE
[S] pH 9.0:STABLE
[ ] pH :
[ ] pH :
[ ] pH :

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Photolysis (161-2, -3, -4)
[V] Water: STABLE
[ ] :
[ ] :
[ ] :

[V] Soil : 143 DAYS
[ ] Air :

Aerobic Soil Metabolism (162-1)
[S] 61-71 DAYS IN SILT LOAM, BUT
[ ] DEGRADATION RATES SLOWED AFTER
[ ] INCREASING AGING AND AFTER 240
[ ] DAYS 34-37% OF PARENT COMPOUND
[ ] WAS STILL PRESENT.
[ ]
[ ]

Anaerobic Soil Metabolism (162-2)
[S] NO APPRECIABLE DEGRADATION IN
[ ] 62 DAYS.
[ ]
[ ]
[ ]
[ ]
[ ]

Anaerobic Aquatic Metabolism (162-3)
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]

Aerobic Aquatic Metabolism (162-4)
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]

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Soil Partition Coefficient (Kd) (163-1)

	Sd	Si	Cl	%OM	Kads	Kdes
[V]	38	34	28	3.42	4.44	1.19
[V]	98	0	2	0.95	1.46	0.47
[V]	16	58	26	2.05	7.08	4.18
[V]	70	20	10	2.90	9.77	4.08
[V]	32	14	54	0.44	2.39	0.58

Soil Rf Factors (163-1)
[S] MOST OF ACTIV. RECOVERED FROM
[ ] SiLm COLUMNS (AEROBICALLY
[ ] AGED SAMPLES) LEACHED WITH
[ ] 20" WATER WAS PRESENT AS
[ ] PARENT IN TOP 10 CM SOIL.
[ ]

Laboratory Volatility (163-2)
[ ]
[ ]

Field Volatility (163-3)
[ ]
[ ]

Terrestrial Field Dissipation (164-1)
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]

Aquatic Dissipation (164-2)
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]

Forestry Dissipation (164-3)
[ ]
[ ]

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Long-Term Soil Dissipation (164-5)
[ ]
[ ]

Accumulation in Rotational Crops, Confined (165-1)
[ ]
[ ]

Accumulation in Rotational Crops, Field (165-2)
[ ]
[ ]

Accumulation in Irrigated Crops (165-3)
[ ]
[ ]

Bioaccumulation in Fish (165-4)
[ ]
[ ]

Bioaccumulation in Non-Target Organisms (165-5)
[ ]
[ ]

Ground Water Monitoring, Prospective (166-1)
[ ]
[ ]
[ ]
[ ]

Ground Water Monitoring, Small Scale Retrospective (166-2)
[ ]
[ ]
[ ]
[ ]

Ground Water Monitoring, Large Scale Retrospective (166-3)
[ ]
[ ]
[ ]
[ ]

Ground Water Monitoring, Miscellaneous Data (158.75)
[ ]
[ ]
[ ]

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Field Runoff (167-1)
[ ]
[ ]
[ ]
[ ]

Surface Water Monitoring (167-2)
[ ]
[ ]
[ ]
[ ]

Spray Drift, Droplet Spectrum (201-1)
[ ]
[ ]
[ ]
[ ]

Spray Drift, Field Evaluation (202-1)
[ ]
[ ]
[ ]
[ ]

Degradation Products

1,2,4-triazole (= 15% from aerobic soil metabolism, and this compound is very mobile)

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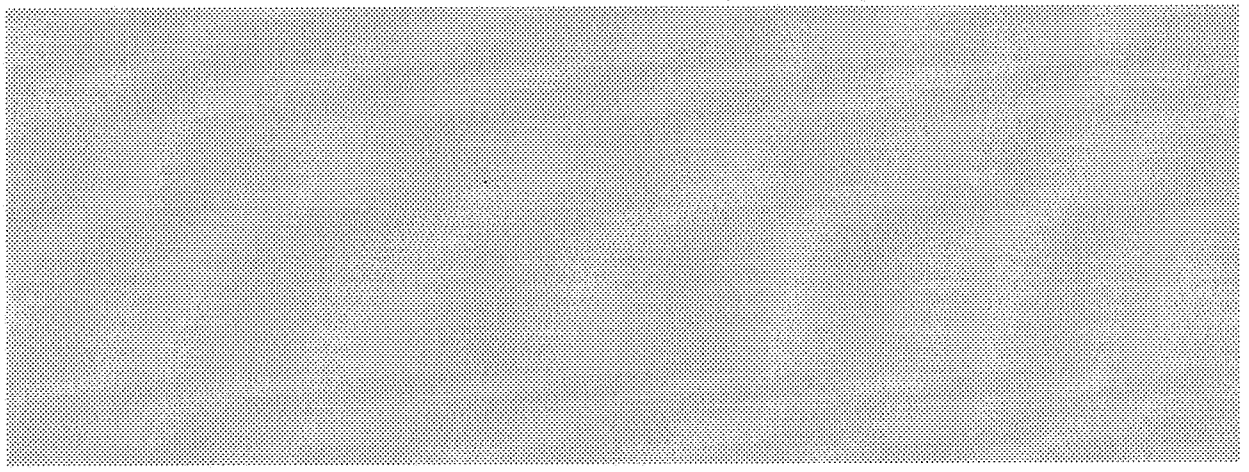
Comments



References:
Writer :